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REMARKS

Claims 1-28 are currently pending in the above-identified patent application. Claims 1, 5, 15, and 19 have been amended.

In the subject Office Action, the Examiner objected to claim 1, because in line 12, the word "plurality" should be removed, since there is only one plurality of disk drives. Applicants wish to thank the Examiner for having identified this error, and have amended claim 1 in accordance with the Examiner's suggestion. No new matter has been added by this change.

Claims 5, 14, 19 and 28 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The Examiner asserted that the claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make use of the invention, since neither drawings nor the description includes a fan capable of causing air to flow in the direction claimed in claims 5 and 19; or hard disks oriented such that one of the small faces is perpendicular to the backplane as recited in claims 14 and 28.

Claims 5 and 19 have been amended to conform to the description of the airflow found in FIGURE 2 and page 7, lines 1-8 of the subject Specification, as originally filed. Therein, airflow 220 is generated by fans 216 and 218 in enclosure 202. No new matter has been added to the present patent application by these changes.

Applicants respectfully disagree with the Examiner concerning the rejection of claims 14 and 28, since FIGURE 2 clearly illustrates a situation where two of the small faces of the disk drives are oriented perpendicular to backplane 204.

Claims 1 and 15 and also claims 2-14 and 16-28 as dependent therefrom, were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention, since the Examiner stated that claims 1 and 15 recite the limitation "said interface" in line 16 of claim 1 and in line 14 of claim 15, and there

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is insufficient antecedent basis for this limitation in the claim. Applicants wish to thank the Examiner for having identified this clear typographical error, and have amended claims 1 and 15 in response thereto to replace the word "interface" with "enclosure." No new matter has been added by these changes.

The Examiner rejected claims 1-4, 6-8, 10-11, 13, 15-18, 20-22, 24-25, and 27 under 35 USC 102(e) as being anticipated by Malcolm et al. (U.S. Patent Application Publication No. 2004/0105225 A1), since the Examiner stated that Malcolm et al. teaches a rack-mounted storage system with multiple disk drives 11, comprising: a rectangular prismatic enclosure 19 with six substantially planar sides having at least two largest sides 17, 18, a primary access side 26 and an input/output side 20, said primary access side 26 not being one of said largest sides 17, 18 and said input/output side 20, being opposite of and substantially parallel to said primary access 26; a back plane 12 oriented parallel to said at least one of said two largest sides, said back plane 12 having a plurality of disk drive interface connectors 14 and at least one interface connector 15; a plurality of 2.5 inch factor disk drives 11 having an elongated rectangular prismatic shape mounting frame comprising two large faces and two small faces, one of said two large faces oriented perpendicularly to said backplane 12, each of said disk drives having a connector 13 plugged in one of said connectors 14; and said backplane 12 with said plurality of disk drives 11 being slidingly engaged into an interface connector 23 and adapted to be removed from said enclosure through said access side as a single unit. The Examiner continued that Malcolm et al. also teaches: said storage system further comprises an interface mechanism engaged to said interface connector 23 and capable for transferring signals from said interface connector 23 to at least one input/output connector accessible from said input/output side 20; said storage system further comprising at least one fan capable of causing air to flow from said primary access side to said input/output side (or in opposite direction, which inherently depends on the direction of rotation of the fan). The Examiner then stated that Malcolm et al. teaches said storage system further comprising a frame 10 onto which are mounted said backplane 12 and said plurality of disk drives, said frame adapted to be slidingly inserted onto said enclosure from said access side 26.

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Applicants respectfully disagree with the Examiner concerning this ground of rejection for the reasons to be set forth hereinbelow.

Claims 1, 9, 12, 14, 15, and 28 were rejected under 35 U.S.C. 102(e) as being anticipated by Curtis et al. (U.S. Patent No. 6,650,533), since the Examiner asserted that Curtis et al. teaches a free-standing storage system with multiple disk drives 84, comprising: a rectangular prismatic enclosure 10 with six substantially planar sides having at least two largest sides, a primary access side 20 and an input/output side 18, said primary access side 20 not being one of said largest sides, and said input/output side 18 being opposite of and substantially parallel to said primary access side 20; a backplane 22 oriented parallel to said at least one of said two largest sides, said backplane 22 having a plurality of disk drive interface connectors 26 and at least one interface connector; a plurality of 3.5 inch factor disk drives 82 having an elongated rectangular prismatic shape mounting frame comprising two large faces and two and one of said small faces is perpendicular to said backplane 22, each of said disk drives having a connector 44 plugged in one of said connectors 26; and said backplane 12 with said plurality of disk drives 11 being slidingly engaged into an interface connector of said enclosure 10 and adapted to be removed from said enclosure through said access side as a single unit.

Applicants respectfully disagree with the Examiner concerning this ground of rejection.

Claim 23 was rejected under 35 U.S.C. 103(a) as being unpatentable over Malcolm et al. or Curtis et al., since the Examiner stated that Malcolm et al. and Curtis et al. each teaches all the limitations of the claim except said hard disk is a 1 inch factor disk drive, and concluded that it would have been an obvious matter of design choice to install 1 inch factor disk drives, since applicant has not disclosed that the form factor of a disk drive solves any stated problem or is for any particular purpose, and it appears that the proposed invention would perform equally well with any size of hard disks.

Applicants respectfully disagree with the Examiner concerning this ground of rejection for the reasons to be set forth hereinbelow.

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Ohanian (U.S. Patent No. 6,253,266) and Hsue et al. (U.S. Patent No. 6,883,995), each is being applicable for the rejection of at least claims 1 and 15 of the instant application. Since the Examiner has not applied the cited references to the subject claims, applicants do not believe that a response is necessary.

Briefly, present FIGURE 1 illustrates, and present claim 1, as amended, recites in part: "... a back plane oriented substantially parallel to said at least one of said two largest sides, said back plane having a plurality of disk drive interface connectors and at least one interface connector; a plurality of disk drives having an elongated rectangular prismatic shape comprising two large faces and two small faces, one of said two large faces oriented perpendicularly to said backplane, each of said disk drives electrically connected to said disk drive interface connectors of said backplane; and said back plane with said plurality of disk drives slidingly engaged into said enclosure and adapted to be removed from said enclosure through said access side as a single unit."

Turning now to the rejection of claims 1-4, 6-8, 10-11, 13, 15-18, 20-22, 24-25, and 27 under 35 USC 102(e) as being anticipated by Malcolm et al. (U.S. Patent Application Publication No. 2004/0105225 A1), applicants wish to direct the Examiner's attention to paragraphs [0014] and [0015] of Malcolm et al. where it is stated: "A typical frame is visible in FIG.1 carrying four disk drives 11a, 11b, 11c, and 11d. These four disk drives contain at least one (and typically more than one) rotating platter. The platters rotate in the plane of FIG. 1. Each drive 11a, 11b, 11c, and 11d has a connector at the bottom of the drive (as oriented in FIG. 1) which plugs into a mating connector on printed circuit board (PCB) 12. PCB 12 has a connector 15 which connects to mating connector 23. PCB 12 has data concentrator circuitry which thereby reduces the pin count at connector 15. FIG. 2 is a front view of a frame 10 according to the invention. The frame is L shaped in FIG. 2a, with a vertical portion (typically of metal such as aluminum) more or less parallel to drive 11 and a horizontal portion. In some cases the horizontal portion may literally be the same as printed circuit board 12, but it is thought preferable that

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the horizontal portion include a strong portion (typically made of metal such as aluminum) that is affixed to the vertical portion or, preferably, is integrally formed with it." Clearly, an "L-shaped" frame is taught by Malcolm et al. Such a frame is neither taught nor claimed in the present patent application; rather a back plane having a plurality of disk drives connected thereto is claimed. (Emphasis added by applicants). Therefore, applicants respectfully believe that Malcolm et al. teaches away from the present claimed invention.

Turning to paragraphs [0019]-[0022] of Malcolm et al., it is stated that: "FIG. 3b is a close-up rear view of the frame 10 of FIG. 3a. The PCB 12 may be seen in an end view. The frame 10 has a connector 15 for power and data. This connector 15 mates with a connector 23 of the centerplane 21, as shown in FIG. 1. In FIGS. 3a and 3b it will be appreciated that typically three other drives are parallel to the drive 11 portrayed in the figure, but are behind or in front of the drive and thus only one of the drives 11 is visible. This arrangement consists of an "L" frame 10 allowing the placement of some number of drives 11 standing vertically in the frame 11 with connectors 13 facing down. Optionally, these frames 10 can be doubled, that is, with two rows of hard drives, one row on one face of the vertical portion and a second row on the other face of the vertical portion. The "L" bracket is preferably embossed or ribbed to provide rigidity, as shown in FIG. 1." FIGURES 1 and 2 of the subject patent application, as originally filed, show more than two drives having their large sides parallel disposed across the access side of the enclosure and attached to the same frame, and subject claims 1 and 15 do not limit the present invention to at most two lines of side-by-side disk drives as required by Malcolm et al. Therefore, applicants respectfully believe that Malcolm et al. teaches away from the present claimed invention in this aspect as well.

The Examiner rejected claims 1, 9, 12, 14, 15, and 28 under 35 U.S.C. 102(e) as being anticipated by Curtis et al. (U.S. Patent No. 6,650,533). FIG. 3 of Curtis et al. illustrates that disk drives 82 are mounted on board 22 which is clearly not slidingly engaged in enclosure 10, as is required by subject claims 1 and 15. Therefore, applicants believe that Curtis et al. teaches away from the present claimed invention.

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Claim 23 was rejected under 35 U.S.C. 103(a) as being unpatentable over Malcolm et al. or Curtis et al. Since, as stated hereinabove, applicants believe that both Malcolm et al. and Curtis et al. teach away from the present claimed invention, applicants further believe that the Examiner has improperly combined Malcolm et al. and Curtis et al. Therefore, applicants respectfully believe that the Examiner has not made a proper *prima facie* case for obviousness as is required under 35 U.S.C. 103(a).

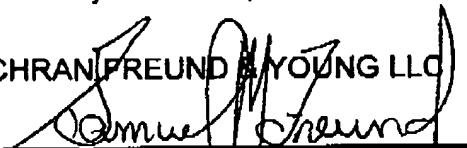
In view of the discussion presented hereinabove, applicants believe that subject claims 1-28, as amended, are in condition for allowance, and such action by the Examiner at an early is earnestly solicited.

Reexamination and reconsideration are respectfully requested.

Respectfully submitted,

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